

## **Implement a program using basic programming constructs like Branching and Looping**

### **1} while loop**

```
class Whileloop
{
    public static void main(String arg[])
    {
int a=0;
        while(a<=100)
        {
            if(a%20==0)
            {
                System.out.println(a);
            } a++;
        }
    }
}
```

Output :

0

20

40

60

80

100

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3570]
(c) Microsoft Corporation. All rights reserved.

C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>java Whileloop.java
0
20
40
60
80
100

C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>
```

## 2} for loop

```
class Forloop
```

```
{
```

```
    public static void main(String arg[])
```

```
    {
```

```
        int a;
```

```
        for(a=0;a<=100;a++)
```

```
        {
```

```
        if(a%20==0)
        {
            System.out.println(a);
        }
    }
}
```

Output :

0  
20  
40  
60  
80  
100

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3570]
(c) Microsoft Corporation. All rights reserved.

C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>java Whileloop.java
0
20
40
60
80
100

C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>
```

### 3} dowhile loop

```
class Dowhileloop
```

```
{
```

```
    public static void main(String arg[])
```

```
    {
```

```
int a=0;
```

```
    do
```

```
    {
```

```
        if(a%20==0)
```

```
        {
```

```
            System.out.println(a);
```

```
        } a++;
```

```
    } while(a<=100);  
    }  
}
```

Output :

0

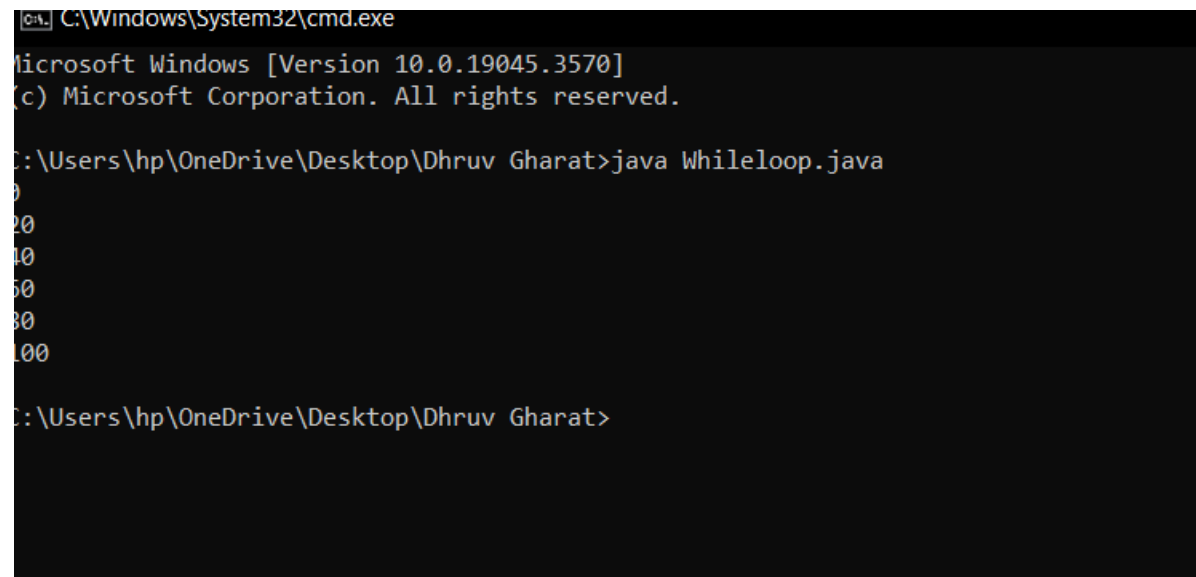
20

40

60

80

100

A screenshot of a Windows command prompt window. The title bar shows 'C:\Windows\System32\cmd.exe'. The window content displays the following text:  
Microsoft Windows [Version 10.0.19045.3570]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>java Whileloop.java  
0  
20  
40  
60  
80  
100  
  
C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>

#### 4}if else

```
public class IfElseExample {  
    public static void main(String[] args) {
```

```
int number=13;

    if(number%2==0){

        System.out.println("even number");

    }else{

        System.out.println("odd number");

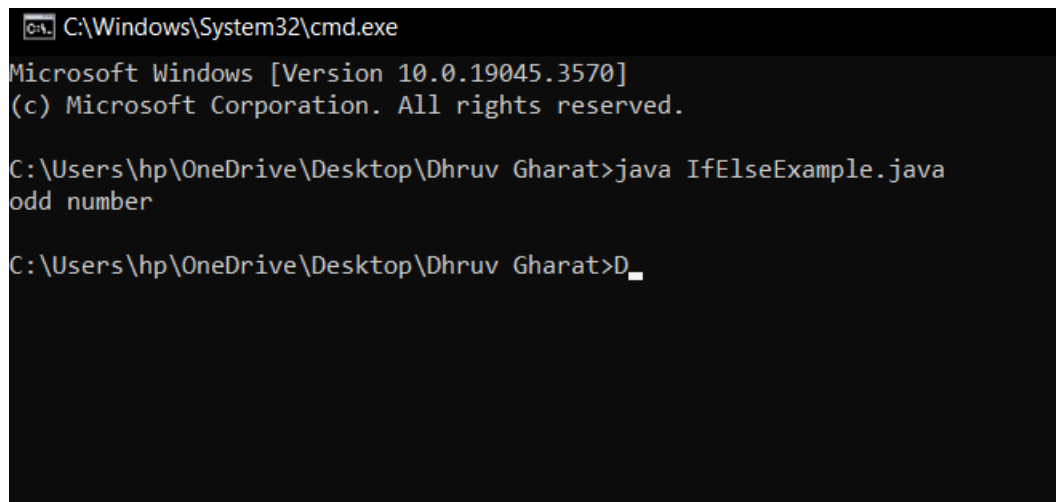
    }

}

}
```

Output:

odd number

A screenshot of a Windows command prompt window. The title bar shows 'C:\Windows\System32\cmd.exe'. The window content displays the following text: 'Microsoft Windows [Version 10.0.19045.3570] (c) Microsoft Corporation. All rights reserved. C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>java IfElseExample.java odd number C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>D\_'. The text is white on a black background.

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3570]
(c) Microsoft Corporation. All rights reserved.

C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>java IfElseExample.java
odd number

C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>D_
```

## 5} Ladder if else

```
class SecJavaProgram

{

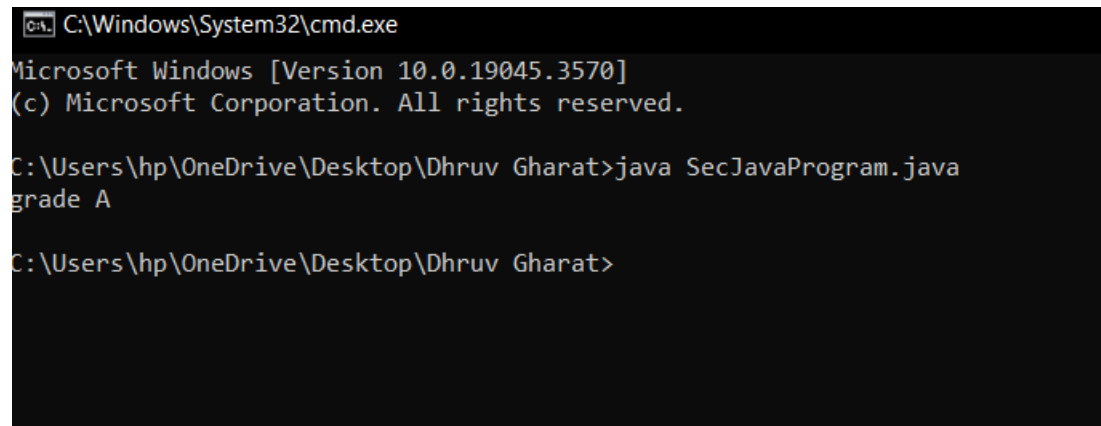
    public static void main(String args[])
```

```
{  
    int a=90;  
  
    if(a>=90)  
    {  
        System.out.println("grade A");  
    }  
    else if(a>=80)  
    {  
        System.out.println("grade B");  
    }  
    else if(a>=70)  
    {  
        System.out.println("grade c");  
    }  
    else if(a<70)  
    {  
        System.out.println("grade F");  
    }  
}
```

```
}  
}
```

Output :

grade A



```
C:\Windows\System32\cmd.exe  
Microsoft Windows [Version 10.0.19045.3570]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>java SecJavaProgram.java  
grade A  
  
C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>
```

## 6} nested if else

```
public class PositiveNegativeExample {  
    public static void main(String[] args) {  
        int number=-13;  
        if(number>0){  
            System.out.println("POSITIVE");  
        }else if(number<0){  
            System.out.println("NEGATIVE");  
        }else{  
            System.out.println("ZERO");  
        }  
    }  
}
```



```
    }  
}  
}
```

Output :

NEGATIVE

```
C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>java PositiveNegativeExample.java  
NEGATIVE  
  
C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>
```

## 7} switch

```
class SecJavaProgram
```

```
{
```

```
    public static void main(String args[])
```

```
{
```

```
    int a=6;
```

```
    switch(a)
```

```
{
```

```
case 1:
```

```
    System.out.println("monday");
```

```
    break;
```

```
case 2:
```

```
System.out.println("tuesday");  
break;  
case 3:  
System.out.println("wednesday");  
break;  
case 4:  
System.out.println("thursday");  
break;  
case 5:  
System.out.println("friday");  
break;  
case 6:  
System.out.println("saturday");  
break;  
case 7:  
System.out.println("sunday");  
break;  
default:  
System.out.println("invalid");
```

```
break;
```

```
}
```

```
}
```

```
}
```

Output:

Saturday

```
C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>java SecJavaProgram.java  
saturday
```

```
C:\Users\hp\OneDrive\Desktop\Dhruv Gharat>
```